4.3.5.4.7 *Cultural and Paleontological Resources*

This section discusses construction and operational impacts to cultural and paleontological resources that may result from the Evolutionary LWR Alternative at each of the representative sites analyzed. Land to be disturbed during construction of the large or small two-unit evolutionary LWR totals 284 ha (700 acres). Construction of a large or small one-unit evolutionary LWR would disturb 142 ha (350 acres). Total land area requirement during operation for the large or small two-unit evolutionary LWR would be 138 ha (340 acres), and increasing the facility to four units (small) would increase operation land area to 227 ha (560 acres). [Text deleted.]

Because there is no difference in plant footprint or land disturbance between the large and small reactors, impacts to cultural and paleontological resources would not differ. For the discussion of impacts, the term cultural resources includes prehistoric, historic, and Native American resources. Cultural and paleontological resources at the proposed sites may be affected directly through ground disturbance during construction, visual intrusion of the project to the historic setting or environmental context of historic sites, visual and audio intrusions to Native American resources, reduced access to traditional use areas, and unauthorized artifact collecting and vandalism.

Hanford Site

The evolutionary LWR would be constructed adjacent to the WNP-1 and WNP-2 reactors. An archaeological surface survey was completed in the area of the WNP-1 reactor, including the staging area and pumphouse site, in 1974 and no archaeological sites were identified. However, archaeological monitoring during construction identified historic and prehistoric artifacts (HF WPPSS 1983a:66,68). Prehistoric resources that may occur at Hanford include remains of campsites, burials, and hunting/kill sites. Historic resources may include remains of ranches, homesteads, or trash dumps.

Native American resources potentially affected by the construction and operation of the proposed facility would be identified through consultation with interested parties. Impacts may include disturbance of important Native American plant communities, reduced access to traditional use areas, or visual and audio intrusion into sacred spaces.

Construction may affect some paleontological remains. Pliocene and Late Pleistocene remains have been found in and around Hanford. These remains have high research potential. There would be no additional impacts to paleontological resources from operation as it does not involve additional ground disturbance.

Nevada Test Site

The evolutionary LWR would be constructed in Area 6, near the DAF on Frenchman Flat. In 1984, a Class III cultural resources survey was conducted across the 660-ha (1,610-acre) DAF site, and no NRHP-eligible sites were identified. Although no resources were identified within the DAF project area, Frenchman Flat contains 49 sites which have been determined eligible for inclusion on the NRHP. Recorded prehistoric sites within Frenchman Flat include base and temporary camps, quarries, and lithic reduction areas. Identified historic resources include sites associated with nuclear testing and research. Additional unsurveyed land necessary for the proposed facility may contain similar prehistoric or historic resources. Impacts to resources would occur during construction of the proposed facility. Operation would not result in additional impacts as it does not involve ground disturbance or increased activity.

The CGTO has conducted surveys over portions of Frenchman Flat and identified at least 20 plant species of importance to Native Americans. Additional project-specific consultations would be necessary to identify impacts to Native American resources resulting from the construction and operation of the facility. Potential impacts include reduced access to traditional use areas and visual or auditory intrusions to sacred space.

Although none have been identified to date, Quaternary deposits containing scientifically valuable paleontological remains may occur in the area to be disturbed during construction. Such remains have been found near NTS. Paleontological remains may be affected by construction, but not operation, of the facility.

Idaho National Engineering Laboratory

The facility would be constructed northwest of the PBF in the Central Core Area/Prime Development Land Zone of INEL. This area has been developed and disturbed and the probability of finding NRHP-eligible archaeological sites or paleontological remains is low, but possible. Construction and operation are not expected to have an effect on these resources. Some Native American resources such as traditional use areas and sacred space may be affected by the construction and operation of the facility. Some paleontological remains may be affected by construction. There are 31 known fossil localities at INEL. Operation would not have an additional effect on these resources.

Pantex Plant

The evolutionary LWR would be constructed in the northwest portion of Pantex, west of the burning ground. This area is currently used for agriculture. Some NRHP-eligible resources may be affected by the construction of this facility. Any resources would be identified during the NHPA Section 106 compliance process. There would be no operational impacts to archaeological remains because operation does not involve additional ground disturbance. Construction and operation of these facilities may affect some Native American resources. Native American resources would be identified through project-specific consultation with potentially affected groups. Some paleontological resources may occur in the area to be affected by construction. Operation would not have an additional impact.

Oak Ridge Reservation

This facility would be constructed in the western portion of ORR, south of Bear Creek Road along the Clinch River. A portion of this area was reviewed for archaeological and historic resources as part of the EIS for construction of the proposed Clinch River Breeder Reactor. At that time four historic sites, five archaeological sites, and one cemetery were identified (OR NRC 1977a:2-7). One of the archaeological sites was a prehistoric burial mound. Additional resources may be identified through the NHPA Section 106 compliance process. Construction poses the greatest threat to archaeological resources. Operation would not directly affect these resources.

Construction and operation could have an effect on Native American resources by disturbing traditional plant and animal communities through construction and by reducing access to traditional use areas during operation. These resources could be identified through project-specific consultation with potentially affected tribes.

Paleontological resources could also be affected through new construction, however, those known to occur at ORR are relatively common fossils with low research potential. Operation would not have an impact on these resources.

Savannah River Site

The evolutionary LWR would be located east of the N-Area on undeveloped/forested land previously assessed for the New Production Reactor. This tract contains three NRHP-eligible historic sites. Additional NRHP-eligible resources may occur within unsurveyed areas to be disturbed by construction. Prehistoric site types that may occur at SRS include villages, base camps, limited activity sites, quarries, and workshops. Historic site types that may occur at SRS include cattle ranches, farmsteads, tenant dwellings, mills, plantations and slave quarters, rice farming dikes, cattle pens, dams, towns, churches, cemeteries, trash scatters and roads. In addition, some Native American resources such as remains of villages, traditional plant gathering areas,

cemeteries, and isolated burials may be affected by construction and operation of the facility. No scientifically valuable fossil remains have been recorded at SRS to date. Facility construction and operation are not expected to affect paleontological resources.

[Text deleted.]